



## Client

Laguna Sur Homeowners Association

## Reference

Seabreeze Management

Schedule: 2021-2022

## Service Area/Region of Impact:

- Orange County
- Laguna Niguel

## Key Team Members:

- **Principal** • Alissa Cope
- **QAL** • Alissa Cope
- **Operations** • Carson Helton

## Major Work Products:

- Site Visits
- Confirmation of weed and fire fuel populations and wider survey of immediate area
- Vegetation Management Plan
- Coordination with HOA management/site staff
- Coordination with OCFA fire inspector
- Mechanical Removal, Herbicide treatment and Prescribed Goat Grazing
- Fire Authority Compliance

## FUEL MODIFICATION PROGRAM



### Overview

Sage Environmental Group (Sage) conducted multi-year fire fuel modification activities within defined defensible space on behalf of the Laguna Sur Home-owners Association (HOA), a community located at the top of steep slopes in coastal Orange County.

### Approach

Sage collaborated with HOA community management and on-site staff as well as the Orange County Fire Authority fire inspector to evaluate the extent of fire fuel load coverage along the entire perimeter of the community. This was accomplished by multiple site visits. The data collected was incorporated into a final Vegetation Management Plan for ~25 acres that defined the precise square feet and distance downslope involved as well as the fire authority's requirements for defensible space. A final map of the areas was prepared.

### Prescribed Goat Grazing

Fuel modification zones were located within extremely steep and overgrown terrain. A herd of goats, owned by Sage, was deployed to graze flammable brush and invasive plants. The goats worked in multiple zones within contained pens set by Sage crew throughout the project area. Many of the grazing areas were not safely accessible to humans due to the steep slopes.

### Mechanical Removal

Hand crews used a variety of tools to trim and remove flammable brush and small trees. All brush and grasses were trimmed to the level required by the fire inspector. Larger shrubs and trees were trimmed to remove lower branches, dead branches, and thinned to create a fuel break between the ground and branches.

As suggested by the fire inspector, forest mulcher/masticator equipment was used to cut and mulch in place several acres of highly flammable acacia on ridges in dangerous proximity to homes. Use of the masticator was a cost-effective approach. The plant is not palatable to goats and the labor to remove the biomass would have been prohibitably expensive.

### Herbicide Treatments

Sage deployed a Qualified Herbicide Applicator and crew to conduct brush control on designated plant populations that were unpalatable or toxic to goat grazing or were at risk of reemergence.

**Reporting:** Annual reports, including maps and list of plant populations treated during the field season, were provided to the HOA and fire inspector.